

**CLAIMS**

1. Use of a COX-2 inhibitor and a NK-1 receptor antagonist for the manufacture of a medicament for the treatment or prevention of  
5 inflammatory disorders.

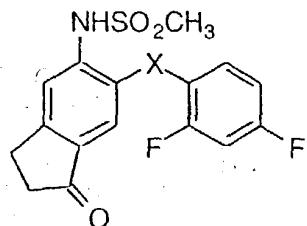
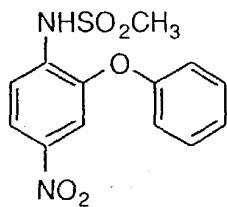
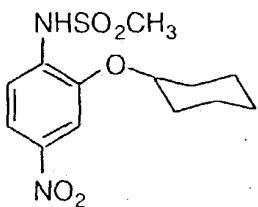
2. A pharmaceutical composition for the treatment or prevention of inflammatory disorders comprising a COX-2 inhibitor and a NK-1 receptor antagonist, together with at least one pharmaceutically acceptable carrier or excipient.  
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3. A product comprising a COX-2 inhibitor and a NK-1 receptor antagonist as a combined preparation for simultaneous, separate or sequential use in the treatment or prevention of inflammatory disorders.  
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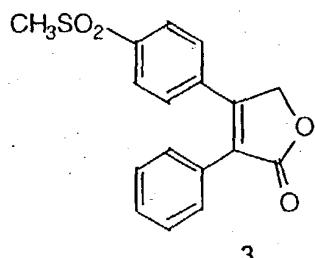
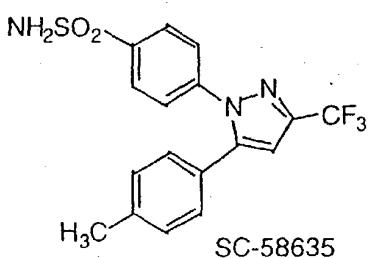
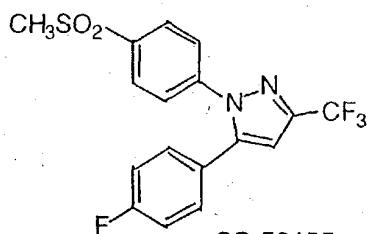
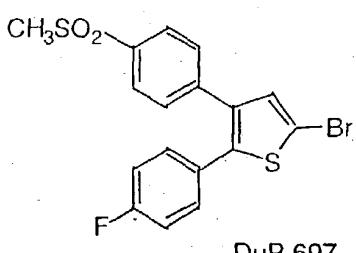
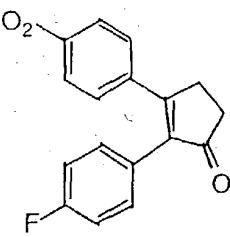
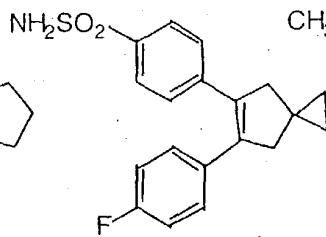
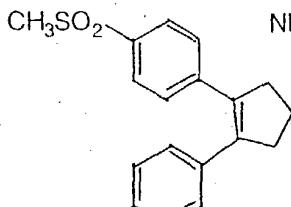
4. A method for the treatment or prevention of inflammatory disorders, which method comprises administration to a patient in need of such treatment of an amount of a COX-2 inhibitor and an amount of a NK-1 receptor antagonist, such that together they give effective relief.  
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5. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the COX-2 inhibitor is selected from the classes of compounds described in U.S. Patent No.'s 5,344,991, 5,380,738, 5,393,790, 5,409,944, 5,434,178,  
25 5,436,265, 5,466,823, 5,474,995, 5,510,368, 5,536,752, 5,550,142,  
5,552,422, 5,604,253, 5,604,260, and 5,639,780; and International Patent Publication Nos. WO 94/13635, WO 94/15932, WO 94/20480,  
WO 94/26731, WO 94/27980, WO 95/00501, WO 95/15316, WO 96/03387,  
WO 96/03388, WO 96/06840, WO 96/21667, WO 96/31509, WO 96/36623,  
30 WO 97/14691, and WO 97/16435.

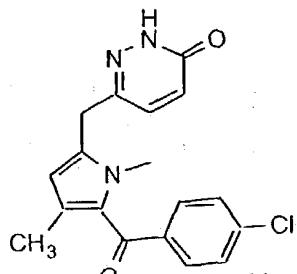
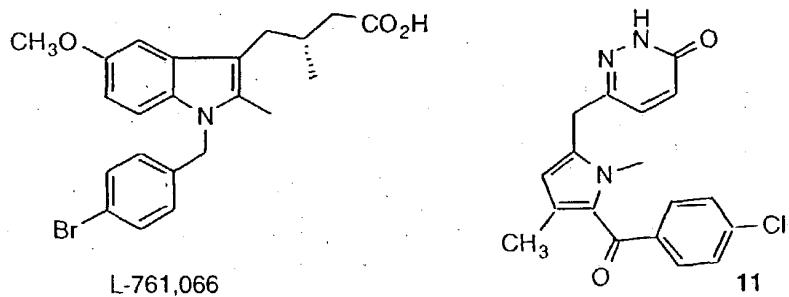
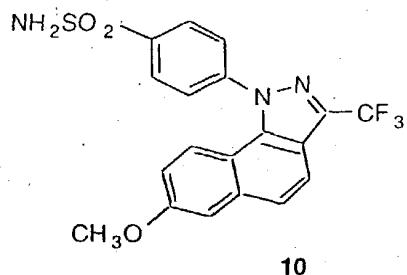
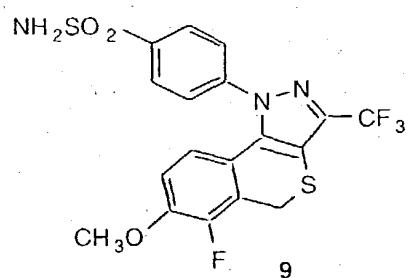
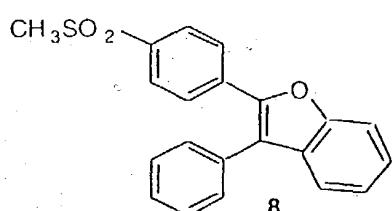
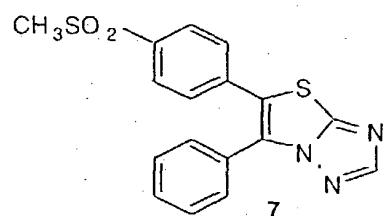
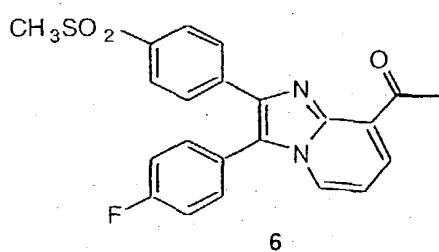
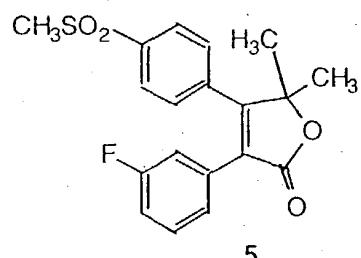
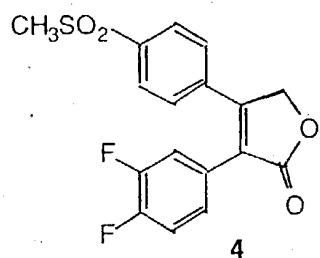
6. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the COX-2 inhibitor is selected from:

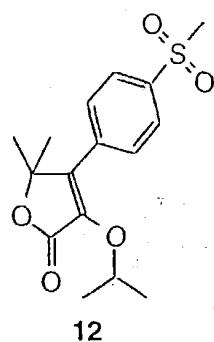


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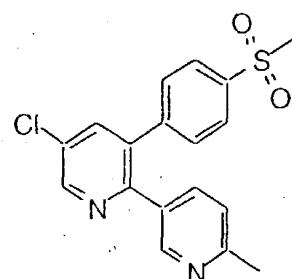


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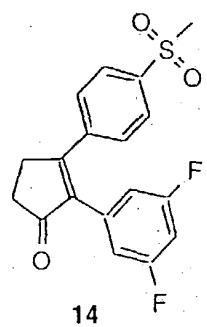




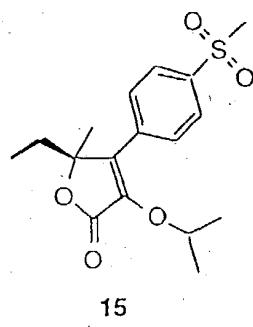
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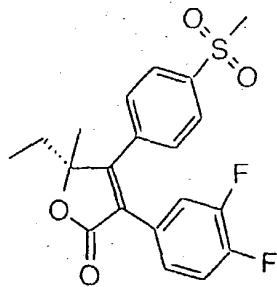
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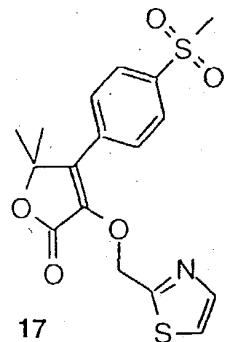
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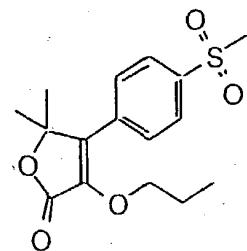
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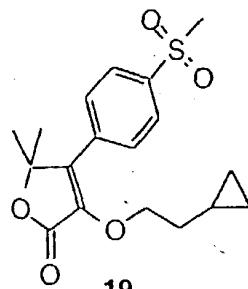
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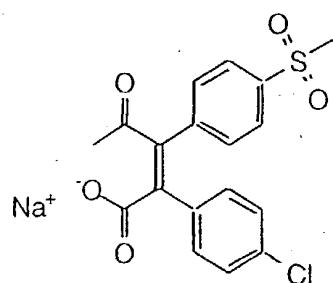
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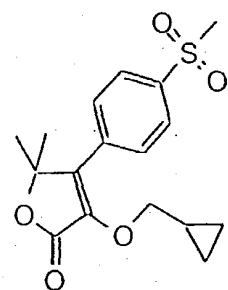
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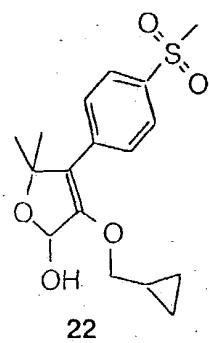
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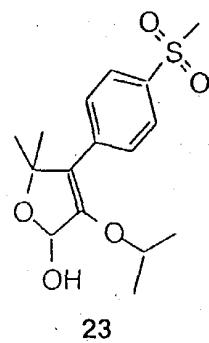
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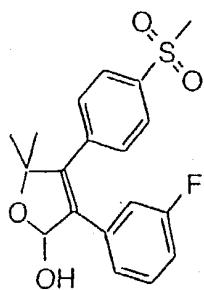
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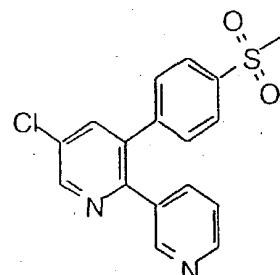
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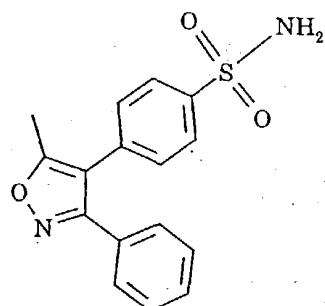
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7. A use, composition, product or method according to claim 6  
wherein the COX-2 inhibitor is selected from:

- 3: 3-phenyl-4-(4-(methylsulfonyl)phenyl)-2-(5H)-furanone;
- 4: 3-(3,4-difluorophenyl)-4-(4-(methylsulfonyl)phenyl)-2-(5H)-furanone;
- 5: 5,5-dimethyl-4-(4-(methylsulfonyl)phenyl)-3-(3-fluorophenyl)-5H-furan-2-one;
- 5    12: 5,5-dimethyl-4-(4-(methylsulfonyl)phenyl)-3-(2-propoxy)-5H-furan-2-one;
- 13: 5-chloro-3-(4-(methylsulfonyl)phenyl)-2-(2-methyl-5-pyridinyl)pyridine;
- 14: 2-(3,5-difluorophenyl)-3-(4-(methylsulfonyl)phenyl)-2-cyclopenten-1-one;
- 10    15: 5(S)-5-ethyl-5-methyl-4-(4-(methylsulfonyl)phenyl)-3-(2-propoxy)-5H-furan-2-one;
- 16: 5-ethyl-5-methyl-4-(4-(methylsulfonyl)phenyl)-3-(3,4-difluorophenyl)-5H-furan-2-one;
- 15    17: 3-((2-thiazolyl)methoxy)-4-(4-(methylsulfonyl)phenyl)-5,5-dimethyl-5H-furan-2-one;
- 18: 3-propyloxy-4-(4-(methylsulfonyl)phenyl)-5,5-dimethyl-5H-furan-2-one;
- 19: 3-(1-cyclopropylethoxy)-5,5-dimethyl-4-(4-methylsulfonyl)phenyl)-5H-furan-2-one;
- 20    20: sodium 2-(4-chlorophenyl)-3-(4-(methylsulfonyl)phenyl)-4-oxo-2-pentenoate;
- 21: 3-(cyclopropylmethoxy)-5,5-dimethyl-4-(4-(methylsulfonyl)phenyl)-5H-furan-2-one;
- 25    22: 3-(cyclopropylmethoxy)-5,5-dimethyl-4-(4-(methylsulfonyl)phenyl)-2,5-dihydrofuran-2-ol;
- 23: 3-isopropoxy-5,5-dimethyl-4-(4-(methylsulfonyl)phenyl)-2,5-dihydrofuran-2-ol;
- 24: 5,5-dimethyl-3-(3-fluorophenyl)-2-hydroxy-4-(4-(methylsulfonyl)phenyl)-2,5-dihydrofuran;
- 30    25: 5-chloro-3-(4-(methylsulfonyl)phenyl)-2-(3-pyridinyl)pyridine;

26: 4-(5-methyl-3-phenyl-4-isoxazolyl)benzenesulfonamide;  
or a pharmaceutically acceptable salt thereof.

8. A use according to claim 1, a composition according to claim  
5 2, a product according to claim 3 or a method according to claim 4 wherein  
the COX-2 inhibitor is selected from:  
5-(4-fluorophenyl)-1-[4-(methylsulfonyl)phenyl]-3-  
(trifluoromethyl)pyrazole;  
4-(4-fluorophenyl)-5-[4-(methylsulfonyl)phenyl]-1-phenyl-3-  
10 (trifluoromethyl)pyrazole;  
4-(5-(4-chlorophenyl)-3-(4-methoxyphenyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
4-(3,5-bis(4-methylphenyl)-1H-pyrazol-1-yl)benzenesulfonamide;  
4-(5-(4-chlorophenyl)-3-phenyl-1H-pyrazol-1-yl)benzenesulfonamide;  
15 4-(3,5-bis(4-methoxyphenyl)-1H-pyrazol-1-yl)benzenesulfonamide;  
4-(5-(4-chlorophenyl)-3-(4-methylphenyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
4-(5-(4-chlorophenyl)-3-(4-nitrophenyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
20 4-(5-(4-chlorophenyl)-3-(5-chloro-2-thienyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
4-(4-chloro-3,5-diphenyl-1H-pyrazol-1-yl)benzenesulfonamide;  
4-(5-(4-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
25 4-(5-phenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)benzenesulfonamide;  
4-(5-(4-fluorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
4-(5-(4-methoxyphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;  
30 4-(5-(4-chlorophenyl)-3-(difluoromethyl)-1H-pyrazol-1-  
yl)benzenesulfonamide;

4-(5-(4-methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)benzenesulfonamide;

4-(4-chloro-5-(4-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)benzenesulfonamide;

5 4-(3-(difluoromethyl)-5-(4-methylphenyl)-1H-pyrazol-1-yl)benzenesulfonamide;

4-(3-(difluoromethyl)-5-phenyl-1H-pyrazol-1-yl)benzenesulfonamide;

4-(3-(difluoromethyl)-5-(4-methoxyphenyl)-1H-pyrazol-1-yl)benzenesulfonamide;

10 4-(3-cyano-5-(4-fluorophenyl)-1H-pyrazol-1-yl)benzenesulfonamide;

4-(3-(difluoromethyl)-5-(3-fluoro-4-methoxyphenyl)-1H-pyrazol-1-yl)benzenesulfonamide;

4-(5-(3-fluoro-4-methoxyphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)benzenesulfonamide;

15 4-(4-chloro-5-phenyl-1H-pyrazol-1-yl)benzenesulfonamide;

4-(5-(4-chlorophenyl)-3-(hydroxyphenyl)-1H-pyrazol-1-yl)benzenesulfonamide;

4-(5-(4-(N,N-dimethylamino)phenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)benzenesulfonamide;

20 5-(4-fluorophenyl)-6-(4-(methylsulfonyl)phenyl)spiro[2.4]hept-5-ene;

4-(6-(4-fluorophenyl)spiro[2.4]hept-5-en-5-yl)benzenesulfonamide;

6-(4-fluorophenyl)-7-(4-(methylsulfonyl)phenyl)spiro[3.4]oct-6-ene;

5-(3-chloro-4-methoxyphenyl)-6-(4-(methylsulfonyl)phenyl)spiro[2.4]hept-5-ene;

25 4-(6-(3-chloro-4-methoxyphenyl)spiro[2.4]hept-5-en-5-yl)benzenesulfonamide;

5-(3,5-dichloro-4-methoxyphenyl)-6-(4-(methylsulfonyl)phenyl)spiro[2.4]hept-5-ene;

5-(3-chloro-4-fluorophenyl)-6-(4-(methylsulfonyl)phenyl)spiro[2.4]hept-5-ene;

30 4-(6-(3,4-dichlorophenyl)spiro[2.4]hept-5-en-5-yl)benzenesulfonamide;

2-(3-chloro-4-fluorophenyl)-4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)thiazole;

2-(2-chlorophenyl)-4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)thiazole;

5-(4-fluorophenyl)-4-(4-methylsulfonylphenyl)-2-methylthiazole;

5 4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)-2-trifluoromethylthiazole;

4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)-2-(2-thienyl)thiazole;

4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)-2-benzylaminothiazole;

4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)-2-(1-propylamino)thiazole;

2-((3,5-dichlorophenoxy)methyl)-4-(4-fluorophenyl)-5-(4-methylsulfonylphenyl)thiazole;

10 5-(4-fluorophenyl)-4-(4-methylsulfonylphenyl)-2-trifluoromethylthiazole;

1-methylsulfonyl-4-(1,1-dimethyl-4-(4-fluorophenyl)cyclopenta-2,4-dien-3-yl)benzene;

4-(4-(4-fluorophenyl)-1,1-dimethylcyclopenta-2,4-dien-3-yl)benzenesulfonamide;

15 5-(4-fluorophenyl)-6-(4-(methylsulfonyl)phenyl)spiro[2.4]hepta-4,6-diene;

4-(6-(4-fluorophenyl)spiro[2.4]hepta-4,6-dien-5-yl)benzenesulfonamide;

6-(4-fluorophenyl)-2-methoxy-5-(4-(methylsulfonyl)phenyl)-pyridine-3-carbonitrile;

20 2-bromo-6-(4-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)-pyridine-3-carbonitrile;

6-(4-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)-2-phenyl-pyridine-3-carbonitrile;

4-(2-(4-methylpyridin-2-yl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

25 4-(2-(5-methylpyridin-3-yl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

4-(2-(2-methylpyridin-3-yl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

30 3-(1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazol-2-yl)benzenesulfonamide;

2-(1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazol-2-yl)pyridine;

2-methyl-4-(1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazol-2-yl)pyridine;

5 2-methyl-6-(1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazol-2-yl)pyridine;

4-(2-(6-methylpyridin-3-yl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

2-(3,4-difluorophenyl)-1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-

10 imidazole;

4-(2-(4-methylphenyl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

2-(4-chlorophenyl)-1-(4-(methylsulfonyl)phenyl)-4-methyl-1H-imidazole;

2-(4-chlorophenyl)-1-(4-(methylsulfonyl)phenyl)-4-phenyl-1H-imidazole;

15 2-(4-chlorophenyl)-4-(4-fluorophenyl)-1-(4-(methylsulfonyl)phenyl)-1H-imidazole;

2-(3-fluoro-4-methoxyphenyl)-1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazole;

1-(4-(methylsulfonyl)phenyl)-2-phenyl-4-trifluoromethyl-1H-imidazole;

20 2-(4-methylphenyl)-1-(4-(methylsulfonyl)phenyl)-4-trifluoromethyl-1H-imidazole;

4-(2-(3-chloro-4-methylphenyl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

2-(3-fluoro-5-methylphenyl)-1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazole;

25 4-(2-(3-fluoro-5-methylphenyl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

2-(3-methylphenyl)-1-(4-(methylsulfonyl)phenyl)-4-(trifluoromethyl)-1H-imidazole;

30 4-(2-(3-methylphenyl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

1-(4-(methylsulfonyl)phenyl)-2-(3-chlorophenyl)-4-(trifluoromethyl)-1H-imidazole;

4-(2-(3-chlorophenyl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

5 4-(2-phenyl-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

4-(2-(4-methoxy-3-chlorophenyl)-4-(trifluoromethyl)-1H-imidazol-1-yl)benzenesulfonamide;

1-allyl-4-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-5-(trifluoromethyl)-1H-pyrazole;

10 4-(1-ethyl-4-(4-fluorophenyl)-5-(trifluoromethyl)-1H-pyrazol-3-yl)benzenesulfonamide;

N-phenyl-(4-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-5-(trifluoromethyl)-1H-pyrazol-1-yl)acetamide;

ethyl (4-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-5-(trifluoromethyl)-1H-pyrazol-1-yl)acetate;

15 4-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-1-(2-phenylethyl)-1H-pyrazole;

4-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-1-(2-phenylethyl)-5-(trifluoromethyl)pyrazole;

20 1-ethyl-4-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-5-(trifluoromethyl)-1H-pyrazole;

5-(4-fluorophenyl)-4-(4-(methylsulfonyl)phenyl)-2-(trifluoromethyl)-1H-imidazole;

4-(4-(methylsulfonyl)phenyl)-5-(2-thiophenyl)-2-(trifluoromethyl)-1H-imidazole;

25 5-(4-fluorophenyl)-2-methoxy-4-(4-(methylsulfonyl)phenyl)-6-(trifluoromethyl)pyridine;

2-ethoxy-5-(4-fluorophenyl)-4-(4-(methylsulfonyl)phenyl)-6-(trifluoromethyl)pyridine;

30 5-(4-fluorophenyl)-4-(4-(methylsulfonyl)phenyl)-2-(2-propynyoxy)-6-(trifluoromethyl)pyridine;

2-bromo-5-(4-fluorophenyl)-4-(4-(methylsulfonyl)phenyl)-6-(trifluoromethyl)pyridine;

4-(2-(3-chloro-4-methoxyphenyl)-4,5-difluorophenyl)benzenesulfonamide;

1-(4-fluorophenyl)-2-(4-(methylsulfonyl)phenyl)benzene;

5 5-difluoromethyl-4-(4-(methylsulfonyl)phenyl)-3-phenylisoxazole;

4-(3-ethyl-5-phenylisoxazol-4-yl)benzenesulfonamide;

4-(5-difluoromethyl-3-phenylisoxazol-4-yl)benzenesulfonamide;

4-(5-hydroxymethyl-3-phenylisoxazol-4-yl)benzenesulfonamide;

4-(5-methyl-3-phenylisoxazol-4-yl)benzenesulfonamide;

10 1-(2-(4-fluorophenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

1-(2-(4-fluoro-2-methylphenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

1-(2-(4-chlorophenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

1-(2-(2,4-dichlorophenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

1-(2-(4-trifluoromethylphenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

15 1-(2-(4-methylthiophenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

1-(2-(4-fluorophenyl)-4,4-dimethylcyclopenten-1-yl)-4-(methylsulfonyl)benzene;

4-(2-(4-fluorophenyl)-4,4-dimethylcyclopenten-1-yl)benzenesulfonamide;

1-(2-(4-chlorophenyl)-4,4-dimethylcyclopenten-1-yl)-4-(methylsulfonyl)benzene;

20 1-(2-(4-methoxyphenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

4-(2-(4-chlorophenyl)-4,4-dimethylcyclopenten-1-yl)benzenesulfonamide;

4-(2-(4-fluorophenyl)cyclopenten-1-yl)benzenesulfonamide;

4-(2-(4-chlorophenyl)cyclopenten-1-yl)benzenesulfonamide;

1-(2-(4-methoxyphenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

25 1-(2-(2,3-difluorophenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

4-(2-(3-fluoro-4-methoxyphenyl)cyclopenten-1-yl)benzenesulfonamide;

1-(2-(3-chloro-4-methoxyphenyl)cyclopenten-1-yl)-4-(methylsulfonyl)benzene;

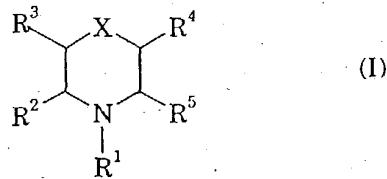
4-(2-(3-chloro-4-fluorophenyl)cyclopenten-1-yl)benzenesulfonamide;

30 4-(2-(2-methylpyridin-5-yl)cyclopenten-1-yl)benzenesulfonamide;

ethyl 2-(4-(4-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)oxazol-2-yl)-2-benzyl-acetate;  
 2-(4-(4-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)oxazol-2-yl)acetic acid;  
 2-(tert-butyl)-4-(4-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)oxazole;  
 5 4-(4-fluorophenyl)-5-(4-(methylsulfonyl)phenyl)-2-phenyloxazole;  
 4-(4-fluorophenyl)-2-methyl-5-(4-(methylsulfonyl)phenyl)oxazole; and  
 4-(5-(3-fluoro-4-methoxyphenyl)-2-trifluoromethyl-4-oxazolyl)benzenesulfonamide;  
 or a pharmaceutically acceptable salt thereof.

10

9. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula I:



15 wherein:

$\text{R}^1$  is selected from the group consisting of:

- (1)  $\text{C}_{1-6}$ alkyl, substituted with one or more of the substituents selected from:
  - (a) heterocycle, wherein the heterocycle is selected from the group consisting of:
    - (A) benzimidazolyl,
    - (B) imidazolyl,
    - (C) isoxazolyl,
    - (D) isothiazolyl,
    - (E) oxadiazolyl,
    - (F) pyrazinyl,
    - (G) pyrazolyl,
    - (H) pyridyl,

(I) pyrrolyl,  
 (J) tetrazolyl,  
 (K) thiadiazolyl,  
 (L) triazolyl, and  
 (M) piperidinyl,

and wherein the heterocycle is unsubstituted or substituted with one or more substituent(s) selected from:

(i) C<sub>1-6</sub>alkyl, unsubstituted or substituted with halo, -CF<sub>3</sub>, -OCH<sub>3</sub>, or phenyl,

are independently selected from:

20 (I) hydrogen,  
 (II) C<sub>1-6</sub>alkyl,  
 (III) hydroxyC<sub>1-6</sub>alkyl, and  
 (IV) phenyl,  
 (xi) -NR<sup>9</sup>COR<sup>10</sup>, wherein R<sup>9</sup> and R<sup>10</sup> are as defined above.

25 and

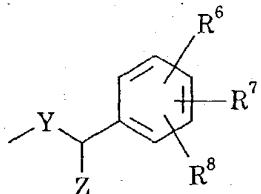
(xiii) -CONR<sup>9</sup>R<sup>10</sup>, wherein R<sup>9</sup> and R<sup>10</sup> are as defined above.

$R^2$  and  $R^3$  are independently selected from the group consisting of:

(1) hydrogen;  
 (2) C<sub>1-6</sub>alkyl  
 30            (3) C<sub>2-6</sub>alkenyl, and  
 (5) phenyl;

X is -O-;

R<sup>4</sup> is



R<sup>5</sup> is phenyl, unsubstituted or substituted with halo;

5. R<sup>6</sup>, R<sup>7</sup> and R<sup>8</sup> are independently selected from the group consisting of:

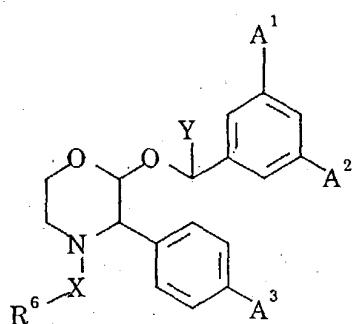
- (1) hydrogen,
- (2) C<sub>1-6</sub>alkyl,
- (3) halo, and
- (4) -CF<sub>3</sub>;

10. Y is -O-; and

Z is hydrogen or C<sub>1-4</sub>alkyl;

or a pharmaceutically acceptable salt thereof.

10. A use according to claim 1, a composition according to claim  
15. 2, a product according to claim 3 or a method according to claim 4 wherein  
the NK-1 receptor antagonist is a compound of formula II:



(II)

wherein:

20. A<sup>1</sup> is fluorine or CF<sub>3</sub>;  
A<sup>2</sup> is fluorine or CF<sub>3</sub>;

A<sup>3</sup> is fluorine or hydrogen;

R<sup>6</sup> is a 5-membered or 6-membered heterocyclic ring containing 2 or 3 nitrogen atoms optionally substituted by =O, =S or a C<sub>1-4</sub>alkyl group, and optionally substituted by a group of the formula ZNR<sup>7</sup>R<sup>8</sup> where

5       Z is C<sub>1-6</sub>alkylene or C<sub>3-6</sub>cycloalkylene;

      R<sup>7</sup> is hydrogen, C<sub>1-4</sub>alkyl, C<sub>3-7</sub>cycloalkyl or C<sub>3-7</sub>cycloalkylC<sub>1-4</sub>alkyl, or C<sub>2-4</sub>alkyl substituted by C<sub>1-4</sub>alkoxy or hydroxyl;

      R<sup>8</sup> is hydrogen, C<sub>1-4</sub>alkyl, C<sub>3-7</sub>cycloalkyl or C<sub>3-7</sub>cycloalkylC<sub>1-4</sub>alkyl, or C<sub>2-4</sub>alkyl substituted by one or two substituents selected from C<sub>1-4</sub>alkoxy,

10      hydroxyl or a 4, 5 or 6 membered heteroaliphatic ring containing one or two heteroatoms selected from N, O and S;

      or R<sup>7</sup>, R<sup>8</sup> and the nitrogen atom to which they are attached form a heteroaliphatic ring of 4 to 7 ring atoms, optionally substituted by a hydroxy group, and optionally containing a double bond, which ring may

15      optionally contain an oxygen or sulphur ring atom, a group S(O) or S(O)<sub>2</sub> or a second nitrogen atom which will be part of a NH or NR<sup>c</sup> moiety where R<sup>c</sup> is C<sub>1-4</sub>alkyl optionally substituted by hydroxy or C<sub>1-4</sub>alkoxy;

      or R<sup>7</sup>, R<sup>8</sup> and the nitrogen atom to which they are attached form a non-aromatic azabicyclic ring system of 6 to 12 ring atoms;

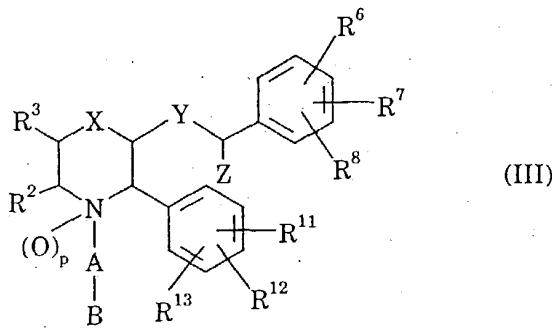
20      or Z, R<sup>7</sup> and the nitrogen atom to which they are attached form a heteroaliphatic ring of 4 to 7 ring atoms which may optionally contain an oxygen ring atom;

      X is an alkylene chain of 1 to 4 carbon atoms optionally substituted by oxo; and

25      Y is a C<sub>1-4</sub>alkyl group optionally substituted by a hydroxyl group; with the proviso that if Y is C<sub>1-4</sub>alkyl, R<sup>6</sup> is substituted at least by a group of formula ZNR<sup>7</sup>R<sup>8</sup> as defined above; or a pharmaceutically acceptable salt thereof.

11. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula III:

5



wherein:

R<sup>2</sup> and R<sup>3</sup> are independently selected from the group consisting of:

- (1) hydrogen,
- 10 (2) C<sub>1-6</sub>alkyl,
- (3) C<sub>2-6</sub>alkenyl, and
- (4) phenyl;

R<sup>6</sup>, R<sup>7</sup> and R<sup>8</sup> are independently selected from the group consisting of:

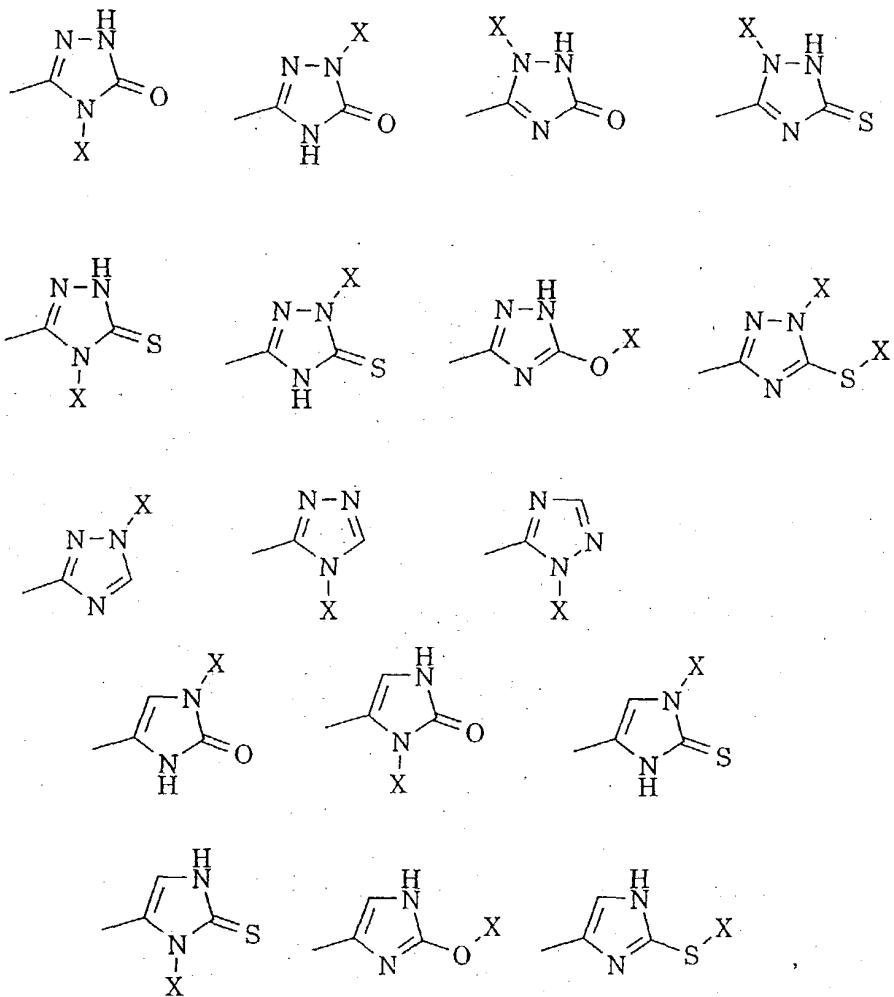
- (1) hydrogen,
- 15 (2) C<sub>1-6</sub>alkyl,
- (3) fluoro,
- (4) chloro,
- (5) bromo,
- (6) iodo, and
- 20 (7) -CF<sub>3</sub>;

R<sup>11</sup>, R<sup>12</sup> and R<sup>13</sup> are independently selected from the group consisting of:

- (1) fluoro,
- (2) chloro,
- (3) bromo, and
- 25 (4) iodo;

A is unsubstituted 1-alkyl;

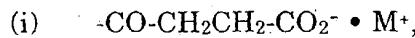
B is selected from the group consisting of:



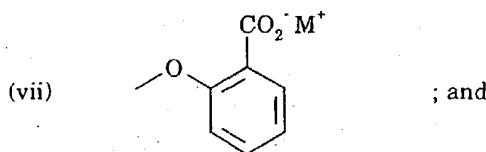
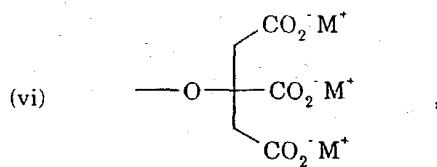
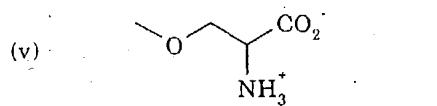
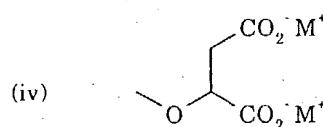
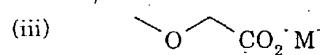
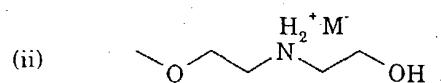
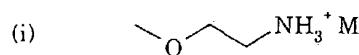
p is 0 or 1;

5 X is selected from:

- (a)  $-\text{PO}(\text{OH})\text{O}^- \bullet \text{M}^+$ , wherein  $\text{M}^+$  is a pharmaceutically acceptable monovalent counterion,
- (b)  $-\text{PO}(\text{O}^-)_2 \bullet 2\text{M}^+$ ,
- (c)  $-\text{PO}(\text{O}^-)_2 \bullet \text{D}^{2+}$ , wherein  $\text{D}^{2+}$  is a pharmaceutically acceptable divalent counterion,
- (d)  $-\text{CH}(\text{R}^4)\text{-PO}(\text{OH})\text{O}^- \bullet \text{M}^+$ , wherein  $\text{R}^4$  is hydrogen or  $\text{C}_{1-3}\text{alkyl}$ ,
- (e)  $-\text{CH}(\text{R}^4)\text{-PO}(\text{O}^-)_2 \bullet 2\text{M}^+$ ,
- (f)  $-\text{CH}(\text{R}^4)\text{-PO}(\text{O}^-)_2 \bullet \text{D}^{2+}$ ,



(j)  $\text{-CH(CH}_3\text{)-O-CO-R}^5$ , wherein  $R^5$  is selected from the group consisting of:

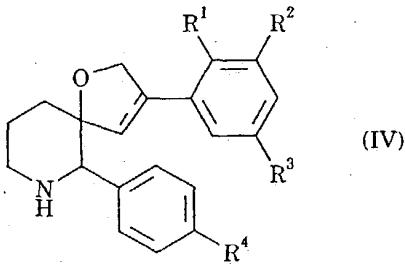


5 Y is  $-O-$ ; and

Z is hydrogen or  $C_{1-6}$ alkyl;  
or a pharmaceutically acceptable salt thereof.

12. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula IV:

5



wherein

R<sup>1</sup> represents hydrogen, hydroxy, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl,  
 10 C<sub>3-7</sub>cycloalkyl, C<sub>3-7</sub>cycloalkylC<sub>1-4</sub>alkyl, C<sub>1-6</sub>alkoxy, fluoroC<sub>1-6</sub>alkoxy,  
 C<sub>1-6</sub>alkoxyC<sub>1-4</sub>alkyl, C<sub>1-6</sub>alkoxyC<sub>1-4</sub>alkoxy, fluoroC<sub>1-6</sub>alkoxyC<sub>1-4</sub>alkyl,  
 C<sub>2-6</sub>alkenyloxy, C<sub>3-7</sub>cycloalkoxy, C<sub>3-7</sub>cycloalkylC<sub>1-4</sub>alkoxy, phenoxy,  
 benzyloxy, cyano, halogen, NR<sup>a</sup>R<sup>b</sup>, SR<sup>a</sup>, SOR<sup>a</sup>, SO<sub>2</sub>R<sup>a</sup>, OSO<sub>2</sub>R<sup>a</sup>, NR<sup>a</sup>COR<sup>14</sup>,  
 COR<sup>a</sup>, CO<sub>2</sub>R<sup>a</sup> or CONR<sup>a</sup>R<sup>b</sup> where R<sup>a</sup> and R<sup>b</sup> each independently represent  
 15 hydrogen, C<sub>1-4</sub>alkyl or fluoroC<sub>1-4</sub>alkyl;

R<sup>2</sup> represents hydrogen, halogen, C<sub>1-6</sub>alkyl or C<sub>1-6</sub>alkoxy;  
 or R<sup>1</sup> and R<sup>2</sup> may be joined together such that there is formed a 5- or  
 6-membered saturated or unsaturated ring containing one or two atoms  
 selected from nitrogen, oxygen and sulphur, which ring is optionally  
 20 substituted by a group selected from C<sub>1-4</sub>alkyl, CF<sub>3</sub>, =O or =S;

R<sup>3</sup> represents hydrogen, halogen, C<sub>1-6</sub>alkyl, fluoroC<sub>1-6</sub>alkyl,  
 C<sub>1-6</sub>alkoxy, fluoroC<sub>1-6</sub>alkoxy, C<sub>3-7</sub>cycloalkyl, C<sub>3-7</sub>cycloalkylC<sub>1-4</sub>alkyl, cyano,  
 SR<sup>a</sup>, SOR<sup>a</sup>, SO<sub>2</sub>R<sup>a</sup>, NR<sup>a</sup>R<sup>b</sup>, NR<sup>a</sup>COR<sup>14</sup>, COR<sup>a</sup>, CO<sub>2</sub>R<sup>a</sup>, CONR<sup>a</sup>R<sup>b</sup> or C<sub>1-4</sub>alkyl  
 substituted by cyano, CO<sub>2</sub>R<sup>a</sup> or CONR<sup>a</sup>R<sup>b</sup> where R<sup>a</sup> and R<sup>b</sup> are as  
 25 previously defined;

R<sup>4</sup> represents hydrogen, halogen, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>,  
 NO<sub>2</sub>, CN, SR<sup>a</sup>, SOR<sup>a</sup>, SO<sub>2</sub>R<sup>a</sup>, CO<sub>2</sub>R<sup>a</sup>, CONR<sup>a</sup>R<sup>b</sup>, C<sub>2-6</sub>alkenyl, C<sub>2-6</sub>alkynyl or

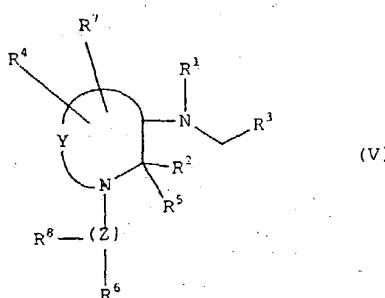
C<sub>1-4</sub>alkyl substituted by C<sub>1-4</sub>alkoxy, where R<sup>a</sup> and R<sup>b</sup> are as previously defined; and

the broken line represents an optional double bond;  
or a pharmaceutically acceptable salt thereof.

5

13. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula V:

10



or a pharmaceutically acceptable salt thereof, wherein

Y is (CH<sub>2</sub>)<sub>n</sub> wherein n is an integer from 1 to 4, and wherein any one of the carbon-carbon single bonds in said (CH<sub>2</sub>)<sub>n</sub> may optionally be replaced by a carbon-carbon double bond, and wherein any one of the carbon atoms of said (CH<sub>2</sub>)<sub>n</sub> may optionally be substituted with R<sup>4</sup>, and wherein any one of the carbon atoms of said (CH<sub>2</sub>)<sub>n</sub> may optionally be substituted with R<sup>7</sup>;

Z is (CH<sub>2</sub>)<sub>m</sub> wherein m is an integer from 0 to 6, and wherein any one of the carbon-carbon single bonds of (CH<sub>2</sub>)<sub>m</sub> may optionally be replaced by a carbon-carbon double bond or a carbon-carbon triple bond, and any one of the carbon atoms of said (CH<sub>2</sub>)<sub>m</sub> may optionally be substituted with R<sup>8</sup>;

R<sup>1</sup> is hydrogen or C<sub>1-8</sub>alkyl optionally substituted with hydroxy, C<sub>1-4</sub>alkoxy or fluoro;

R<sup>2</sup> is a radical selected from hydrogen, C<sub>1-6</sub> straight or branched alkyl, C<sub>3-7</sub>cycloalkyl wherein one of the CH<sub>2</sub> groups in said cycloalkyl may

optionally be replaced by NH, oxygen or sulphur; aryl selected from phenyl and naphthyl; heteroaryl selected from indanyl, thienyl, furyl, pyridyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, triazolyl, tetrazolyl and quinolyl; phenyl-C<sub>2</sub>-alkyl, benzhydryl and benzyl, wherein each of said 5 aryl and heteroaryl groups and the phenyl moieties of said benzyl, phenyl-C<sub>2</sub>-alkyl and benzhydryl may optionally be substituted with one or more substituents independently selected from halo, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub>alkoxy, trifluoromethyl, amino, C<sub>1-6</sub>alkylamino, C<sub>1-6</sub>alkyl-O-CO, C<sub>1-6</sub>alkyl-O-CO-C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl-CO-O, C<sub>1-6</sub>alkyl-CO-C<sub>1-6</sub>alkyl-O-, C<sub>1-6</sub>alkyl-CO, 10 C<sub>1-6</sub>alkyl-CO-C<sub>1-6</sub>alkyl-, di-C<sub>1-6</sub>alkylamino, -CONH-C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl-CO-NH-C<sub>1-6</sub>alkyl, -NHCOH and -NHCO-C<sub>1-6</sub>alkyl; and wherein one of the phenyl moieties of said benzhydryl may optionally be replaced by naphthyl, thienyl, furyl or pyridyl;

R<sup>5</sup> is hydrogen, phenyl or C<sub>1-6</sub>alkyl;

15 or R<sup>2</sup> and R<sup>5</sup> together with the carbon to which they are attached, form a saturated ring having from 3 to 7 carbon atoms wherein one of the CH<sub>2</sub> groups in said ring may optionally be replaced by oxygen, NH or sulfur;

R<sup>3</sup> is aryl selected from phenyl and naphthyl; heteroaryl selected 20 from indanyl, thienyl, furyl, pyridyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, triazolyl, tetrazolyl and quinolyl; and cycloalkyl having 3 to 7 carbon atoms wherein one of the (CH<sub>2</sub>) groups in said cycloalkyl may optionally be replaced by NH, oxygen or sulphur;

wherein each of said aryl and heteroaryl groups may optionally be 25 substituted with one or more substituents, and said C<sub>3-7</sub>cycloalkyl may optionally be substituted with one or two substituents, each of said substituents being independently selected from halo, nitro, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, trifluoromethyl, amino, C<sub>1-6</sub>alkylamino, -CO-NH- C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl-CO-NH-C<sub>1-6</sub>alkyl, -NHCOH and -NHCO-C<sub>1-6</sub>alkyl;

30 R<sup>4</sup> and R<sup>7</sup> are each independently selected from hydroxy, halogen, halo, amino, oxo, cyano, methylene, hydroxymethyl, halomethyl,

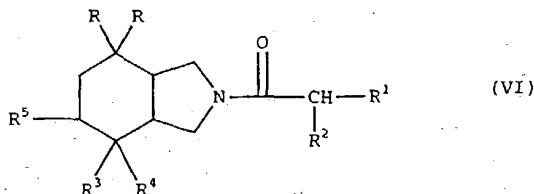
C<sub>1-6</sub>alkylamino, di-C<sub>1-6</sub>alkylamino, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>alkyl-O-CO,  
 C<sub>1-6</sub>alkyl-O-CO-C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl-CO-O, C<sub>1-6</sub>alkyl-CO-C<sub>1-6</sub>alkyl-O-,  
 C<sub>1-6</sub>alkyl-CO-, C<sub>1-6</sub>alkyl-CO-C<sub>1-6</sub>alkyl, and the radicals set forth in the  
 definition of R<sup>2</sup>;

5       R<sup>6</sup> is -NHCOR<sup>9</sup>, -NHCH<sub>2</sub>R<sup>9</sup>, SO<sub>2</sub>R<sup>8</sup> or one of the radicals set forth in  
 any of the definitions of R<sup>2</sup>, R<sup>4</sup> and R<sup>7</sup>;

      R<sup>8</sup> is oximino (=NOH) or one of the radicals set forth in any of the  
 definitions of R<sup>2</sup>, R<sup>4</sup> and R<sup>7</sup>;

      R<sup>9</sup> is C<sub>1-6</sub>alkyl, hydrogen, phenyl or phenylC<sub>1-6</sub>alkyl;  
 10      with the proviso that (a) when m is 0, R<sup>8</sup> is absent, (b) when R<sup>4</sup>, R<sup>6</sup>, R<sup>7</sup> or  
 R<sup>8</sup> is as defined in R<sup>2</sup>, it cannot form together with the carbon to which it  
 is attached ,a ring with R<sup>5</sup>, and (c) when R<sup>4</sup> and R<sup>7</sup> are attached to the  
 same carbon atom, then either each of R<sup>4</sup> and R<sup>7</sup> is independently selected  
 from hydrogen, fluoro and C<sub>1-6</sub>alkyl, or R<sup>4</sup> and R<sup>7</sup>, together with the carbon  
 15     to which they are attached, for a C<sub>3-6</sub> saturated carbocyclic ring that forms  
 a spiro compound with the nitrogen-containing ring to which they are  
 attached;  
 or a pharmaceutically acceptable salt thereof.

20       13. A use according to claim 1, a composition according to claim  
 2, a product according to claim 3 or a method according to claim 4 wherein  
 the NK-1 receptor antagonist is a compound of formula VI:



25    wherein:

      radicals R are phenyl radicals optionally 2- or 3-substituted by a  
 halogen atom or a methyl radical;

R<sup>1</sup> is optionally substituted phenyl, cyclohexadienyl, naphthyl, indenyl or optionally substituted heterocycle;

R<sup>2</sup> is H, halogen, OH, alkyl, aminoalkyl, alkylaminoalkyl, dialkylaminoalkyl, alkyloxy, alkylthio, acyloxy, carboxy, optionally 5 substituted alkyloxycarbonyl, benzyloxycarbonyl, amino or acylamino;

R<sup>3</sup> is optionally 2-substituted phenyl;

$R^4$  is OH or fluorine when  $R^5$  is H;

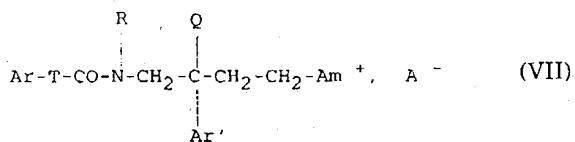
or R<sup>4</sup> and R<sup>5</sup> are OH;

or R<sup>4</sup> and R<sup>5</sup> together form a bond;

10 or a pharmaceutically acceptable salt thereof.

14. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula VII:

15



wherein:

Ar represents an optionally substituted mono-, di- or tricyclic aromatic or heteroaromatic group;

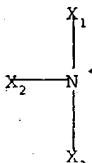
T represents a bond, a hydroxymethylene group, a C<sub>1-4</sub>alkoxymethylene group or a C<sub>1-5</sub>alkylene group;

Ar' represents a phenyl group which is unsubstituted or substituted by one or more substituents selected from halogen, preferably chlorine or fluorine, trifluoromethyl, C<sub>1-4</sub>alkoxy, C<sub>1-4</sub>alkyl where the said substituents may be the same or different; a thienyl group; a benzothienyl group; a naphthyl group; or an indolyl group;

R represents hydrogen, C<sub>1-4</sub>alkyl,  $\omega$ -C<sub>1-4</sub>alkoxyC<sub>1-4</sub>alkyl, or  $\omega$ -C<sub>2-4</sub>alkanoyloxyC<sub>2-4</sub>alkyl;

Q represents hydrogen;  
or Q and R together form a 1,2-ethylene, 1,3-propylene or 1,4-butylene group;

$\text{Am}^+$  represents the radical



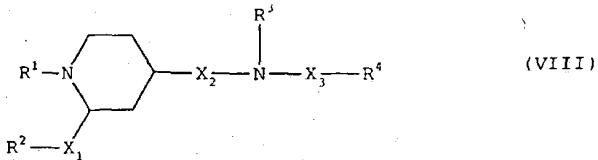
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in which  $X_1$ ,  $X_2$  and  $X_3$ , together with the nitrogen atom to which they are attached, form an azabicyclic or azatricyclic ring system optionally substituted by a phenyl or benzyl group; and

$\text{A}^-$  represents a pharmaceutically acceptable anion.

10

15. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula VIII



15 wherein:

$R^1$  represents an optionally substituted aralkyl, aryloxyalkyl, heteroaralkyl, aroyl, heteroaroyl, cycloalkylcarbonyl, aralkanoyl, heteroarylalkanoyl, aralkoxycarbonyl or arylcarbamoyl group or the acyl group of an  $\alpha$ -amino acid optionally N-substituted by a lower alkanoyl or 20 carbamoyl-lower alkanoyl group;

$R^2$  represents cycloalkyl or an optionally substituted aryl or heteroaryl group;

$R^3$  represents hydrogen, alkyl, carbamoyl or an alkanoyl or alkenoyl group optionally substituted by carboxy or esterified or amidated carboxy;

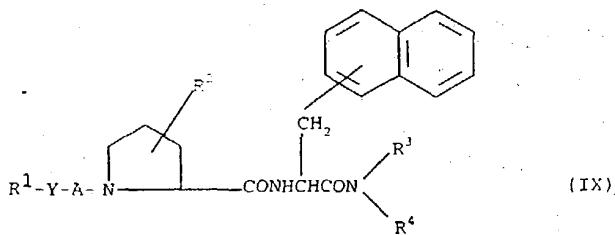
25  $R^4$  represents an optionally substituted aryl group or an optionally partially saturated heteroaryl group;

X<sub>1</sub> represents methylene, ethylene, a bond, an optionally ketalised carbonyl group or an optionally etherified hydroxymethylene group;

X<sub>2</sub> represents alkylene, carbonyl or a bond; and

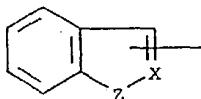
X<sub>3</sub> represents carbonyl, oxo-lower alkyl, oxo(aza)-lower alkyl, or an 5 alkyl group optionally substituted by phenyl, hydroxymethyl, optionally esterified or amidated carboxy, or (in other than the  $\alpha$ -position) hydroxy; or a pharmaceutically acceptable salt thereof.

16. A use according to claim 1, a composition according to claim 10 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula IX:



15 wherein:

R<sup>1</sup> is aryl, or a group of the formula:



X is CH or N; and

Z is O or N-R<sup>5</sup>, in which R<sup>5</sup> is hydrogen or lower alkyl;

20 R<sup>2</sup> is hydroxy or lower alkoxy;

R<sup>3</sup> is hydrogen or optionally substituted lower alkyl;

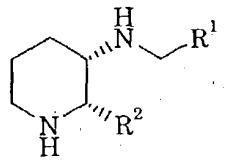
R<sup>4</sup> is optionally substituted ar(lower)alkyl;

A is carbonyl or sulfonyl; and

Y is a bond or lower alkenylene;

25 or a pharmaceutically acceptable salt thereof.

17. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula X:



(X)

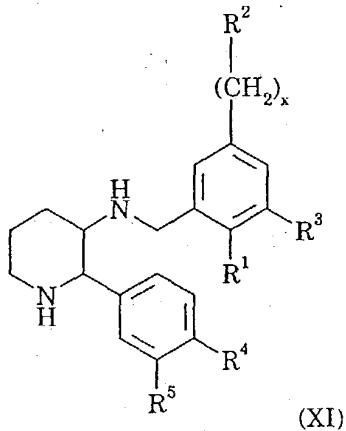
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wherein:

R<sup>1</sup> is aryl selected from indanyl, phenyl and naphthyl; heteroaryl selected from thienyl, furyl, pyridyl and quinolyl; and cycloalkyl having 3 to 7 carbon atoms, wherein one of said carbon atoms may optionally be replaced by nitrogen, oxygen or sulfur; wherein each of said aryl and heteroaryl groups may optionally be substituted with one or more substituents, and said C<sub>3</sub>-7cycloalkyl may optionally be substituted with one or two substituents, said substituents being independently selected from chloro, fluoro, bromo, iodo, nitro, C<sub>1</sub>-10alkyl optionally substituted with from one to three fluoro groups, C<sub>1</sub>-10alkoxy optionally substituted with from one to three fluoro groups, amino, C<sub>1</sub>-10alkyl-S-, C<sub>1</sub>-10alkyl-S(O)-, C<sub>1</sub>-10alkyl-SO<sub>2</sub>-, phenyl, phenoxy, C<sub>1</sub>-10alkyl-SO<sub>2</sub>NH-, C<sub>1</sub>-10alkyl-SO<sub>2</sub>NH-C<sub>1</sub>-10akyl-, C<sub>1</sub>-10alkylamino-diC<sub>1</sub>-10alkyl-, cyano, hydroxy, cycloalkoxy having 3 to 7 carbon atoms, C<sub>1</sub>-6alkylamino, C<sub>1</sub>-6dialkylamino, HC(O)NH- and C<sub>1</sub>-10alkyl-C(O)NH-; and

R<sup>2</sup> is thienyl, benzhydryl, naphthyl or phenyl optionally substituted with from one to three substituents independently selected from chloro, bromo, fluoro, iodo, cycloalkoxy having 3 to 7 carbon atoms, C<sub>1</sub>-10alkyl optionally substituted with from one to three fluoro groups and C<sub>1</sub>-10alkoxy optionally substituted with from one to three fluoro groups; or a pharmaceutically acceptable salt thereof.

18. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula XI:

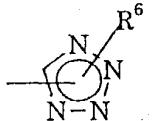


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wherein:

R<sup>1</sup> is a C<sub>1-4</sub>alkoxy group;

R<sup>2</sup> is



10 R<sup>3</sup> is a hydrogen or halogen atom;

R<sup>4</sup> and R<sup>5</sup> may each independently represent a hydrogen or halogen atom, or a C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy or trifluoromethyl group;

R<sup>6</sup> is a hydrogen atom, a C<sub>1-4</sub>alkyl, (CH<sub>2</sub>)<sub>m</sub>cyclopropyl, -S(O)<sub>n</sub>C<sub>1-4</sub>alkyl, phenyl, NR<sup>7</sup>R<sup>8</sup>, CH<sub>2</sub>C(O)CF<sub>3</sub> or trifluoromethyl group;

15 R<sup>7</sup> and R<sup>8</sup> may each independently represent a hydrogen atom, or a C<sub>1-4</sub>alkyl or acyl group;

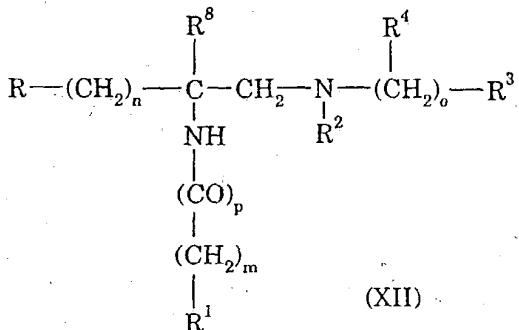
x represents zero or 1;

n represents zero, 1 or 2; and

m represents zero or 1;

20 or a pharmaceutically acceptable salt thereof.

19. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is a compound of formula XII:



5

wherein:

m is zero, 1, 2 or 3;

n is zero or 1;

o is zero, 1 or 2;

10 p is zero or 1;

R is phenyl, 2- or 3-indolyl, 2- or 3-indolinyl, benzothienyl, benzofuranyl, or naphthyl;

which R groups may be substituted with one or two halo, C<sub>1-3</sub>alkoxy, trifluoromethyl, C<sub>1-4</sub>alkyl, phenyl-C<sub>1-3</sub>alkoxy, or C<sub>1-4</sub>alkanoyl groups;

15 R<sup>1</sup> is trityl, phenyl, diphenylmethyl, phenoxy, phenylthio, piperazinyl, piperidinyl, pyrrolidinyl, morpholinyl, indolinyl, indolyl, benzothienyl, hexamethyleneiminy, benzofuranyl, tetrahydropyridinyl, quinolinyl, isoquinolinyl, reduced quinolinyl, reduced isoquinolinyl, phenyl-(C<sub>1-4</sub>alkyl)-, phenyl-(C<sub>1-4</sub>alkoxy)-, quinolinyl-(C<sub>1-4</sub>alkyl)-,

20 isoquinolinyl-(C<sub>1-4</sub>alkyl)-, reduced quinolinyl-(C<sub>1-4</sub>alkyl)-, reduced isoquinolinyl-(C<sub>1-4</sub>alkyl)-, benzoyl-(C<sub>1-3</sub>alkyl)-, C<sub>1-4</sub>alkyl, or -NH-CH<sub>2</sub>-R<sup>5</sup>;

any one of which R<sup>1</sup> groups may be substituted with halo, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, trifluoromethyl, amino, C<sub>1-4</sub>alkylamino, di(C<sub>1-4</sub>alkyl)amino, or C<sub>2-4</sub>alkanoylamino;

or any one of which R<sup>1</sup> groups may be substituted with phenyl, piperazinyl, C<sub>3-8</sub>cycloalkyl, benzyl, C<sub>1-4</sub>alkyl, piperidinyl, pyridinyl, pyrimidinyl, C<sub>2-6</sub>alkanoylamino, pyrrolidinyl, C<sub>2-6</sub>alkanoyl, or C<sub>1-4</sub>alkoxycarbonyl;

5 any one of which groups may be substituted with halo, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, trifluoromethyl, amino, C<sub>1-4</sub>alkylamino, di(C<sub>1-4</sub>alkyl)amino, or C<sub>2-4</sub>alkanoylamino;

10 or R<sup>1</sup> is amino, a leaving group, hydrogen, C<sub>1-4</sub>alkylamino, or di(C<sub>1-4</sub>alkyl)amino;

15 R<sup>5</sup> is pyridyl, anilino-(C<sub>1-3</sub>alkyl)-, or anilinocarbonyl; R<sup>2</sup> is hydrogen, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkylsulfonyl, carboxy-(C<sub>1-3</sub>alkyl)-, C<sub>1-3</sub>alkoxycarbonyl-(C<sub>1-3</sub>alkyl)-, or -CO-R<sup>6</sup>; R<sup>6</sup> is hydrogen, C<sub>1-4</sub>alkyl, C<sub>1-3</sub>haloalkyl, phenyl, C<sub>1-3</sub>alkoxy, C<sub>1-3</sub>hydroxyalkyl, amino, C<sub>1-4</sub>alkylamino, di(C<sub>1-4</sub>alkyl)amino, or -(CH<sub>2</sub>)<sub>q</sub>-R<sup>7</sup>;

20 q is zero to 3; R<sup>7</sup> is carboxy, C<sub>1-4</sub>alkoxycarbonyl, C<sub>1-4</sub>alkylcarbonyloxy, amino, C<sub>1-4</sub>alkylamino, di(C<sub>1-4</sub>alkyl)amino, C<sub>1-6</sub>alkoxycarbonylamino, or phenoxy, phenylthio, piperazinyl, piperidinyl, pyrrolidinyl, morpholinyl, indolinyl, indolyl, benzothienyl, benzofuranyl, quinolinyl, phenyl-(C<sub>1-4</sub>alkyl)-, 25 quinolinyl-(C<sub>1-4</sub>alkyl)-, isoquinolinyl-(C<sub>1-4</sub>alkyl)-, reduced quinolinyl-(C<sub>1-4</sub>alkyl)-, reduced isoquinolinyl-(C<sub>1-4</sub>alkyl)-, benzoyl-C<sub>1-3</sub>alkyl; any one of which aryl or heterocyclic R<sup>7</sup> groups may be substituted with halo, trifluoromethyl, C<sub>1-4</sub>alkoxy, C<sub>1-4</sub>alkyl, amino, C<sub>1-4</sub>alkylamino, di(C<sub>1-4</sub>alkyl)amino, or C<sub>2-4</sub>alkanoylamino;

30 or any one of which R<sup>7</sup> groups may be substituted with phenyl, piperazinyl, C<sub>3-8</sub>cycloalkyl, benzyl, piperidinyl, pyridinyl, pyrimidinyl, pyrrolidinyl, C<sub>2-6</sub>alkanoyl, or C<sub>1-4</sub>alkoxycarbonyl; any of which groups may be substituted with halo, trifluoromethyl, amino, C<sub>1-4</sub>alkoxy, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkylamino, di(C<sub>1-4</sub>alkyl)amino, or C<sub>2-4</sub>alkanoylamino;

R<sup>8</sup> is hydrogen or C<sub>1-6</sub>alkyl;

R<sup>3</sup> is phenyl, phenyl-(C<sub>1</sub>-alkyl)-, C<sub>3</sub>-cycloalkyl, C<sub>5</sub>-cycloalkenyl, C<sub>1</sub>-alkyl, naphthyl, C<sub>2</sub>-alkenyl, or hydrogen;

any one or which groups except hydrogen may be substituted with one or two halo, C<sub>1</sub>-alkoxy, C<sub>1</sub>-alkylthio, nitro, trifluoromethyl, or

5 C<sub>1</sub>-alkyl groups; and

R<sup>4</sup> is hydrogen or C<sub>1</sub>-alkyl;

with the proviso that if R<sup>1</sup> is hydrogen or halo, R<sup>3</sup> is phenyl, phenyl-(C<sub>1</sub>-alkyl)-, C<sub>3</sub>-cycloalkyl, C<sub>5</sub>-cycloalkenyl, or naphthyl; or a pharmaceutically acceptable salt thereof.

10

20. A use, composition, product or method according to any one of the preceding claims wherein the NK-1 receptor antagonist is orally active, long acting and CNS-penetrant.

15

21. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is selected from the classes of compounds described in EP-A-0577394, WO-A-9508549, WO-A-9518124, WO-A-9523798 or WO-A-9605181.

20

22. A use according to claim 1, a composition according to claim 2, a product according to claim 3 or a method according to claim 4 wherein the NK-1 receptor antagonist is selected from  
4-(3-(1,2,4-triazolo)methyl)-2(S)-(3,5-bis(trifluoromethyl)benzyloxy)-3(S)-phenyl-morpholine;  
4-(3-(1,2,4-triazolo)methyl)-2(S)-(3,5-bis(trifluoromethyl)benzyloxy)-3(R)-phenyl-morpholine;  
4-(3-(5-oxo-1H,4H-1,2,4-triazolo)methyl)-2(S)-(3,5-bis(trifluoromethyl)benzyloxy)-3(S)-phenyl-morpholine;  
30 2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluorophenyl)-4-(3-(5-oxo-1H,4H-1,2,4-triazolo)methyl)morpholine;

2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-4-(dimethylamino)methyl-1,2,3-triazol-4-yl)methyl-3-(S)-phenylmorpholine;

2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-4-(dimethylamino)methyl-1,2,3-triazol-4-yl)methyl-3-(S)-(4-fluorophenyl)morpholine;

5 2-(R)-(1-(S)-(3,5-bis(trifluoromethyl)phenyl)-2-hydroxyethoxy)-3-(S)-(4-fluorophenyl)-4-(1,2,4-triazol-3-yl)methylmorpholine;

2-(S)-(3,5-bis(trifluoromethyl)benzyloxy)-3-(S)-phenyl-4-(3-(5-oxo-1H,4H-1,2,4-triazolo)methyl)morpholine N-oxide;

10 2-(S)-(3,5-bis(trifluoromethyl)benzyloxy)-3-(S)-phenyl-4-(3-(4-ethoxycarbonyloxy-1-ethyl)-5-oxo-1H-1,2,4-triazolo)methyl)morpholine;

2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluorophenyl)-4-(3-(4-monophosphoryl-5-oxo-1H-1,2,4-triazolo)methyl)morpholine;

2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluorophenyl)-4-(3-(1-monophosphoryl-5-oxo-1H-1,2,4-triazolo)methyl)morpholine;

15 2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluorophenyl)-4-(3-(2-monophosphoryl-5-oxo-1H-1,2,4-triazolo)methyl)morpholine;

2-(R)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluorophenyl)-4-(3-(5-oxyphosphoryl-1H-1,2,4-triazolo)methyl)morpholine;

2-(S)-(1-(R)-(3,5-bis(trifluoromethyl)phenyl)ethoxy)-3-(S)-(4-fluorophenyl)-

20 4-(3-(1-monophosphoryl-5-oxo-4H-1,2,4-triazolo)methyl)morpholine;

(3*R*,5*R*,6*S*)-3-(2-methoxy-5-(trifluoromethoxy)phenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

(3*R*,5*R*,6*S*)-3-(2-methoxy-5-(trifluoromethyl)phenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

25 (3*R*,5*R*,6*S*)-7-benzyl-3-[2-methoxy-5-(trifluoromethoxy)phenyl]-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

(3*R*,5*R*,6*S*)-3-(2-methoxy-5-trifluoromethoxyphenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

(3*R*,5*R*,6*S*)-3,6-bis(phenyl)-1-oxa-7-aza-spiro[4.5]decane;

30 (3*R*,5*R*,6*S*)-7-benzyl-3-(2-methoxy-5-trifluoromethoxyphenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

( $\pm$ )-(3*R*<sup>\*</sup>,5*R*<sup>\*</sup>,6*S*<sup>\*</sup>)-3-(2-methoxyphenyl)-6-phenyl-1-oxa-7-phenylmethoxycarbonyl)aza-spiro[4.5]decane;

(3*R*,5*R*,6*S*)-3-(2-methoxyphenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

(3*S*,5*R*,6*S*)-3-(2-cyclopropoxy-5-(trifluoromethoxy)phenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

(3*R*,5*R*,6*S*)-3-[2-cyclopropoxy-5-(trifluoromethoxy)phenyl]-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

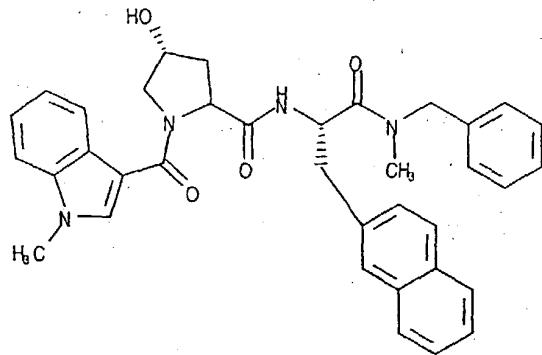
(3*S*,5*R*,6*S*)-3-[2-cyclopropoxy-5-(trifluoromethyl)phenyl]-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;

10 (2*S*,3*S*)-cis-3-(2-methoxybenzylamino)-2-phenylpiperidine;

(3*aS*, 4*S*, 7*aS*)-7,7-diphenyl-4-(2-methoxyphenyl)-2-[(2*S*)-(2-methoxyphenyl)propionyl]perhydroisoindol-4-ol;

(+) 1-[2-[3-(3,4-dichlorophenyl)-1-[(3-isopropoxypyphenyl)acetyl]-3-piperidinyl]ethyl]-4-phenyl-1-azabicyclo[2.2.2]octane;

15 (2*R*<sup>\*</sup>, 4*S*<sup>\*</sup>)-2-benzyl-1-(3,5-dimethylbenzoyl)-N-(4-quinolinylmethyl)-4-piperidineamine;



(2*S*,3*S*)-3-(2-methoxy-5-trifluoromethoxybenzyl)-amino-2-phenylpiperidine;

20 (2-methoxy-5-tetrazol-1-yl-benzyl)-([2*S*,3*S*]-2-phenyl-piperidin-3-yl)-amine; [2-methoxy-5-(5-trifluoromethyl-tetrazol-1-yl)-benzyl]-([2*S*,3*S*]-2-phenyl-piperidin-3-yl)-amine; and [N-(2-methoxybenzyl)acetylamino]-3-(1*H*-indol-3-yl)-2-[N-(2-(4-piperidin-1-yl)piperidin-1-yl)acetylamino]propane;

25 or a pharmaceutically acceptable salt thereof.

23. A process for preparing a pharmaceutical composition comprising combining a COX-2 inhibitor and a NK-1 receptor antagonist with a pharmaceutically acceptable carrier.

5

24. The use of a NK-1 receptor antagonist for the manufacture of a medicament for the combined use with a cyclooxygenase-2 inhibitor for preventing or reducing the risk of developing an inflammatory disorder, for halting or slowing the progression of an inflammatory disorder, or for 10 preventing or reducing the risk of occurrence or recurrence of an inflammatory disorder.

25. The use of a cyclooxygenase-2 inhibitor for the preparation of a medicament for the combined use with a NK-1 receptor antagonist for 15 preventing or reducing the risk of developing an inflammatory disorder, for halting or slowing the progression of an inflammatory disorder, or for preventing or reducing the risk of occurrence or recurrence of an inflammatory disorder.

20 26. A use, composition, product or method according to any one of the preceding claims wherein the inflammatory disorder is selected from rheumatoid arthritis, degenerative joint diseases, osteoarthritis, bursitis, tendinitis, ankylosing spondylitis, gout and synovitis.